RECONNAISSANCE

OR

UTILITY VTOL OR STOL

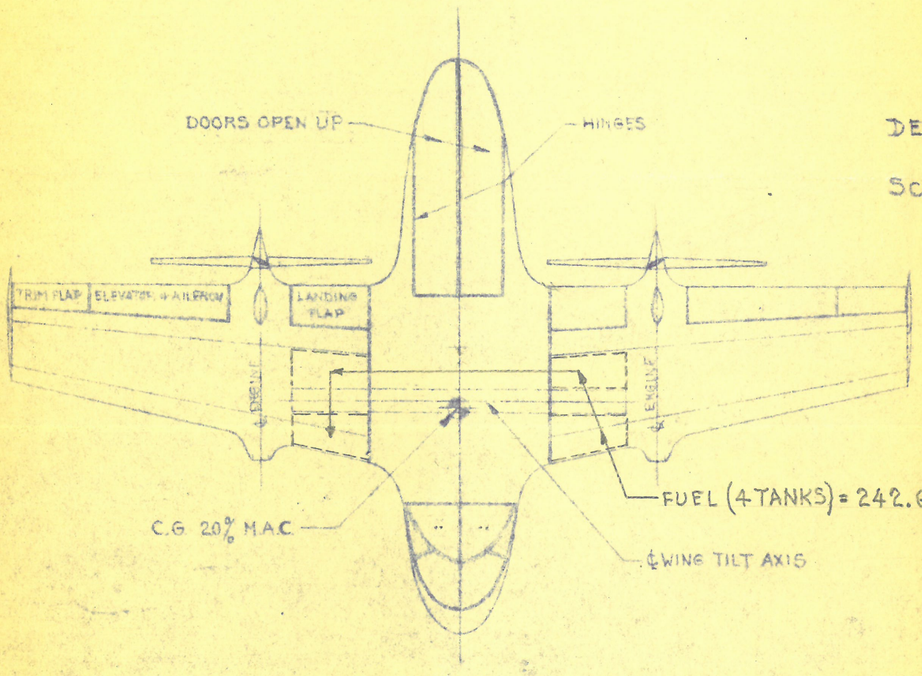
FLYING WING

TILT WING TYPE

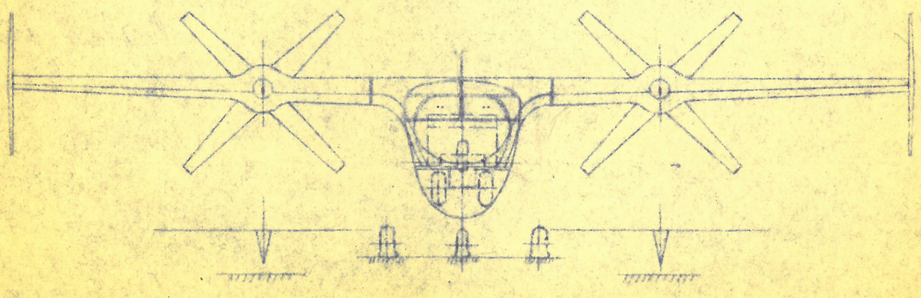
MODEL S-32

DESIGNER Wm F. Schult

Scale ¼" = 1'-0" 8-14-59



PLAN



FRONT

T-64 GE-8

2700 E.S.H.

.495 S.F. lb./Hr./lb for E.S.H.

Weight 1083. lbs Each.

~ DIMENSIONS ~

			Inches	Feet
SPAN	(Dihedral Chord Plane = 1.22°, Washout Tip 0°	b =	588.00	49.00
CHORD	(Root Sec. NACA 63-424 Special)	C_o =	380.00	31.66
"	(Sta. 60" Sec. " 65-315 ")	C_{60} =	117.35	.
"	(M.A.C. Sta. 130.5" Sec. " " ")	$C_{130.5}$ =	101.45	.
"	(Tip Sta. 294" " " " ")	C_{294} =	65.30	5.44
HEIGHT	(From Normal Ground To Props = 15.16', To Fins H	=	160.50	13.70
AREA	(Basic Wing) A = 6, Sweep .25 c = 9.5°, Taper = 0.50	S_W =	57,600.00 [sq]	400.00 [sq]
"	(Fins) 20.[in] x 2.	S_F =	5760. [sq]	40.00 [sq]

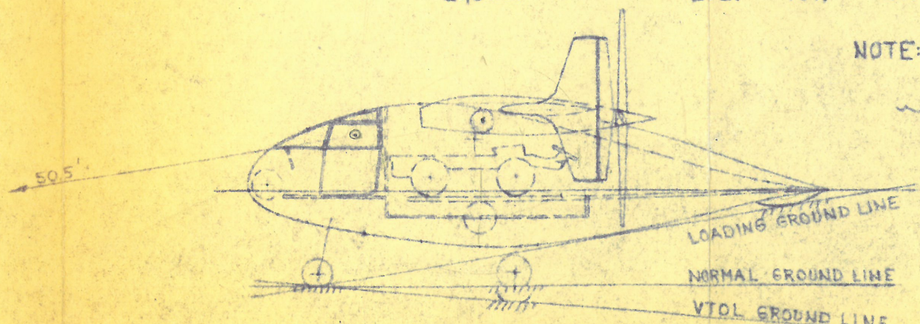
~ WEIGHT ~

		Lb's
EMPTY	=	6912.
WING GROUP	=	1731.
FINS	=	60.
CENTER SECTION	=	1189.
LANDING GEAR	=	780.
PROPULSION SYSTEM	=	1700.
EQUIPMENT	=	1452.
USEFULL LOAD	=	2888.
PILOTS & CHUTES (200 x 2)	=	400.
JEEP (1)	=	900.
FUEL 242. GAL'S x 6.5	=	1574.
OIL 2. GAL'S x 7.0	=	14.
GROSS WEIGHT	=	9800.

~ PERFORMANCE ~

POWER 2-960 S.H.P. LYC. PROP JET ENG'S, 2 HAM. STD. 12' DIA. 4 BLADED PROP'S

ALTITUDE	$V_{K\ min.}$ (MIL)	$V_{K\ max.}$	R. of C'/min	V_K CLIMB	TIME TO ALT'D min.	RANGE N. MILES
SEA LEVEL	0 to 70	243.	3,264.	120.	0.0	420.
5000.	@	241.	2,720.	↑	2.6	444.
10,000.	GROSS	237.	2,180.	↑	5.3	474.
15,000.	of	231.	1,640.	↑	8.3	515.
20,000.	9800. LBS	223.	1,125.	↑	12.3	578.
25,000.		212.	707.	120.	18.9	662.



SIDE

NOTE: R. of C. VTO S.L. 364'/min. @ 236' ALTITUDE

" CONVENTIONAL = 4,070.'/min.

~ MILITARY POWER ~

ALL OTHER DATA USING NORMAL POWER OR LESS

$X_{a.c}$ = .2647 (other Tests)

$\frac{dC_m}{dC_L}$ = -.07572 (Props. Windmilling)

C_{m_ψ} = -.000808 (Props "

C.G. = .20 m.a.c.